

## PATENT ABSTRACTS OF JAPAN

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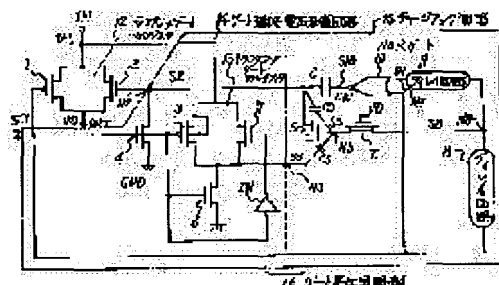
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## (54) GATE BOOSTING CIRCUIT OF TRANSFER GATE TRANSISTOR

## (57)Abstract:

PURPOSE: To prevent gate oxide film destruction by means of a gate excess voltage which is impressed to a transfer gate node and is charged-up.

CONSTITUTION: A gate selecting and voltage protecting circuit 14 which inputs a transfer gate selecting signal SEL with a power source voltage VD and grounded point potential GND as 'H' and 'L' levels and for which a gate node voltage S2 (the sum of the power source voltage VD and an analog input voltage vi) outputted from a charge-up circuit 15 is supplied is provided. The voltage protecting circuit 14 applies the analog input voltage vi to the node N3 as the charged-up input voltage S3 through a second transfer gate transistor 13. Then, in the charge-up circuit 15, the power source voltage VD is added by a capacitance element C, charge-up is executed and the gate node voltage S2 is supplied to the transfer gate node N2. Therefore, the gate node voltage S2 is just higher than the analog input voltage vi only by power source voltage VD so that gate excess voltage destruction is prevented.



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